

Immunization Update 2010

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Disclosures

- The speaker is a federal government employee with no financial interest or conflict with the manufacturer of any product named in this presentation
- The speaker will discuss the off-label use of Hiberix, Prevnar 13, human papillomavirus, zoster, meningococcal conjugate, and zoster vaccines
- The speaker will not discuss vaccines not currently licensed by the Food and Drug Administration



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Recommended Immunization Schedule for Persons Aged 0 Through 6 Years—United States • 2010

For those who fall behind or start late, see the catch-up schedule

Vaccine ▼	Age ►	Birth	1 month	2 months	4 months	6 months	12 months	15 months	18 months	19–23 months	2–3 years	4–6 years
Hepatitis B ¹		HepB	HepB			HepB						
Rotavirus ²			RV	RV	RV ²							
Diphtheria, Tetanus, Pertussis ³			DTaP	DTaP	DTaP	see footnote ³	DTaP					DTaP
Haemophilus influenzae type b ⁴			Hib	Hib	Hib ⁴	Hib						
Pneumococcal ⁵			PCV	PCV	PCV	PCV					PPSV	
Inactivated Poliovirus ⁶			IPV	IPV		IPV						IPV
Influenza ⁷												
Measles, Mumps, Rubella ⁸												
Varicella ⁹												
Hepatitis A ¹⁰												
Meningococcal ¹¹												

Range of recommended ages for all children except certain high-risk groups

This schedule includes recommendations in effect as of December 15, 2009. Any dose not administered at the recommended age should be administered at a subsequent visit, when indicated and feasible. The use of a combination vaccine generally is preferred over separate injections of its equivalent component vaccines. Considerations should include provider assessment, patient preference, and the potential for adverse events. Providers should consult the relevant Advisory

Committee on Immunization
<http://www.cdc.gov/vaccines/imz/>
events the
Reporting
800-822-7765

Recommended Immunization Schedule for Persons Aged 7 Through 18 Years—United States • 2010

For those who fall behind or start late, see the schedule below and the catch-up schedule

Vaccine ▼	Age ►	7–10 years	11–12 years	13–18 years
Tetanus, Diphtheria, Pertussis ¹			Tdap	Tdap
Human Papillomavirus ²		see footnote 2	HPV (3 doses)	HPV series
Meningococcal ³		MCV	MCV	MCV
Influenza ⁴		Influenza (Yearly)		
Pneumococcal ⁵		PPSV		
Hepatitis A ⁶		HepA Series		
Hepatitis B ⁷		Hep B Series		
Inactivated Poliovirus ⁸		IPV Series		
Measles, Mumps, Rubella ⁹		MMR Series		
Varicella ¹⁰		Varicella Series		

Range of recommended ages for all children except certain high-risk groups

Range of recommended ages for catch-up immunization

Range of recommended ages for certain high-risk groups

Recommended Adult Immunization Schedule

UNITED STATES - 2010

Note: These recommendations must be read with the footnotes that follow containing number of doses, intervals between doses, and other important information.

Figure 1. Recommended adult immunization schedule, by vaccine and age group

VACCINE	AGE GROUP	19–26 years	27–49 years	50–59 years	60–64 years	≥65 years
Tetanus, diphtheria, pertussis (Td/Tdap) ^{1,2}		Substitute 1-time dose of Tdap for Td booster; then boost with Td every 10 yrs				Td booster every 10 yrs
Human papillomavirus (HPV) ^{3,4}		3 doses (females)				
Varicella ^{5,6}		2 doses				
Zoster ⁷					1 dose	
Measles, mumps, rubella (MMR) ^{8,9}		1 or 2 doses		1 dose		
Influenza ¹⁰						
Pneumococcal (polysaccharide) ^{11,12}						
Hepatitis A ¹³						
Hepatitis B ^{14,15}						
Meningococcal ^{16,17}						

¹Covered by the Vaccine Injury Compensation Program.

For all persons in this category who lack evidence of immunity (e.g., lack documentation of vaccination or no evidence of prior infection)

Report all clinically significant postvaccination reactions to the Vaccine Adverse Event Reporting System, 800-822-7967.

Information on how to file a Vaccine Injury Compensation Program claim is available at www.hhs.gov/fda/cvrm.

Additional information about the vaccines in this schedule, extent of available data, and contraindications is available at www.cdc.gov/vaccines/imz/faq.htm.

800-CDC-INFO (800-232-4636) in English and Spanish, 24 hours a day, 7 days a week.

Use of trade names and commercial sources is for identification only and does not imply endorsement.

Figure 2. Vaccines that might be indicated for adults based on medical and other indications

VACCINE	INDICATION	Pregnancy	Immuno-compromising conditions (excluding human immunodeficiency virus [HIV]) ^{1,2,3}	HIV infection ^{4,5,6,7}	Diabetes, heart disease, chronic lung disease, chronic alcoholism	Asplenia ⁸ (including elective splenectomy and persistent complement component deficiencies)	Chronic liver disease	Kidney failure, end-stage renal disease, receipt of hemodialysis	Health-care personnel
Tetanus, diphtheria, pertussis (Td/Tdap) ^{1,2}		Td	Substitute 1-time dose of Tdap for Td booster; then boost with Td every 10 yrs						
Human papillomavirus (HPV) ^{3,4}			3 doses for females through age 26 yrs						
Varicella ^{5,6}		Contraindicated	2 doses						
Zoster ⁷		Contraindicated	1 dose						
Measles, mumps, rubella (MMR) ^{8,9}		Contraindicated	1 or 2 doses						
Influenza ¹⁰			1 dose TIV annually						
Pneumococcal (polysaccharide) ^{11,12}			1 or 2 doses						
Hepatitis A ¹³			2 doses						
Hepatitis B ^{14,15}			3 doses						
Meningococcal ^{16,17}			1 or more doses						

¹Covered by the Vaccine Injury Compensation Program.

For all persons in this category who meet the age requirements and who lack evidence of immunity (e.g., lack documentation of vaccination or have no evidence of prior infection)

Recommended if some other risk factor is present (e.g., on the basis of medical, occupational, lifestyle, or other indications)

No recommendation

These schedules indicate the recommended age groups and medical indications for which administration of currently licensed vaccines is commonly indicated for adults ages 19 years and older, as of January 1, 2010. Licensed combination vaccines may be used whenever any components of the combination are indicated and when the vaccine's other components are not contraindicated. For detailed recommendations on all vaccines, including those used primarily for travelers or that are issued during the year, consult the manufacturers' package inserts and the complete statements from the Advisory Committee on Immunization Practices (www.cdc.gov/vaccines/pubs/acip-list.htm).

The recommendations in this schedule were approved by the Centers for Disease Control and Prevention's (CDC) Advisory Committee on Immunization Practices (ACIP), the American Academy of Family Physicians (AAFP), the American College of Obstetricians and Gynecologists (ACOG), and the American College of Physicians (ACP).



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New Rotavirus Contraindication



- Severe combined immunodeficiency (SCID) has been added as a contraindication to both rotavirus vaccines (Rotarix & Rotateq)
 - 7 confirmed cases of vaccine-type rotavirus infection in infants diagnosed with SCID

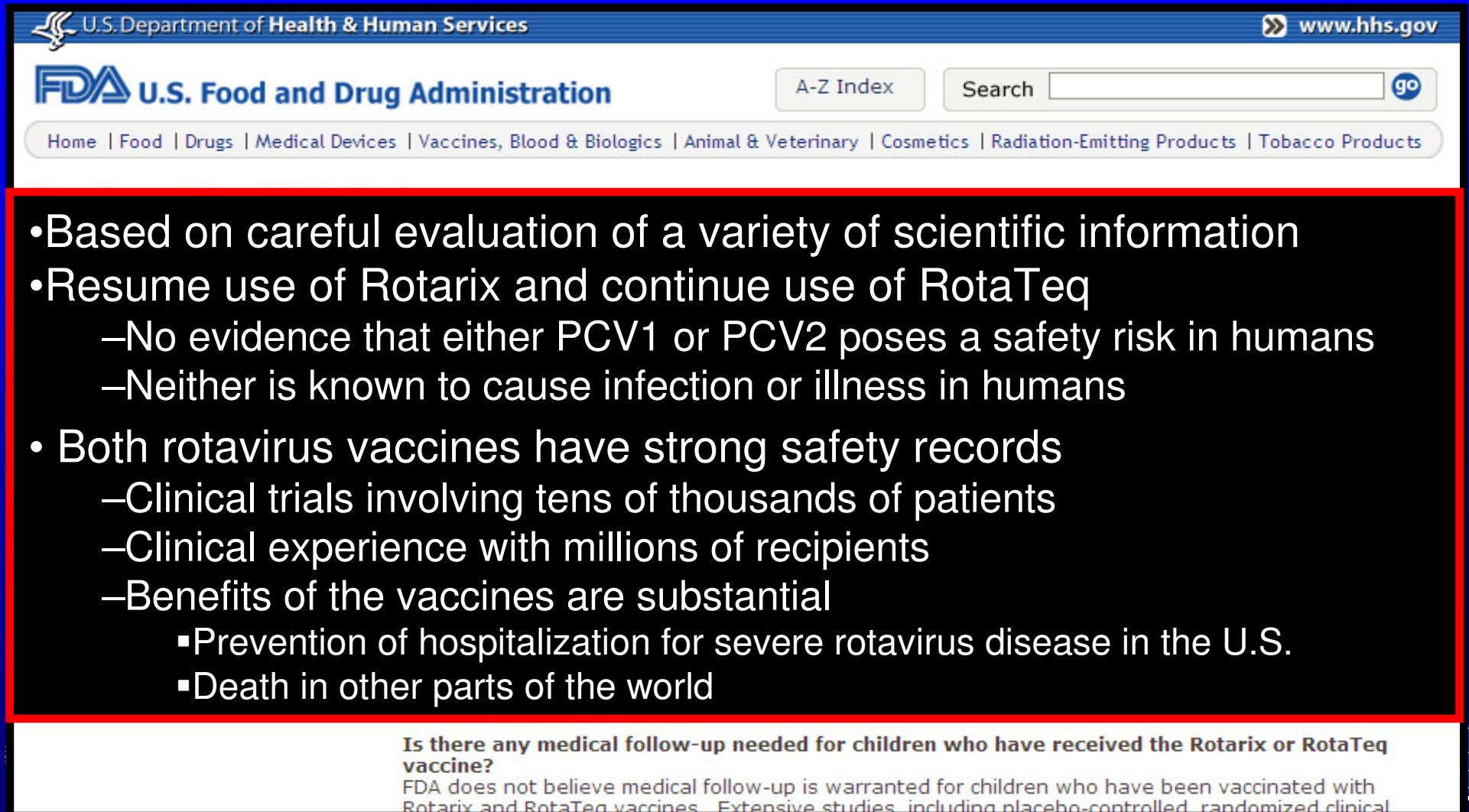


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FDA Revises Recommendations for Use of Rotavirus Vaccines

www.cdc.gov/vaccines/vpd-vac/rotavirus/default.htm#FDA



The screenshot shows the FDA website header with the U.S. Department of Health & Human Services logo and the FDA logo. The navigation bar includes links for Home, Food, Drugs, Medical Devices, Vaccines, Blood & Biologics, Animal & Veterinary, Cosmetics, Radiation-Emitting Products, and Tobacco Products. A search bar and an A-Z Index link are also present.

- Based on careful evaluation of a variety of scientific information
- Resume use of Rotarix and continue use of RotaTeq
 - No evidence that either PCV1 or PCV2 poses a safety risk in humans
 - Neither is known to cause infection or illness in humans
- Both rotavirus vaccines have strong safety records
 - Clinical trials involving tens of thousands of patients
 - Clinical experience with millions of recipients
 - Benefits of the vaccines are substantial
 - Prevention of hospitalization for severe rotavirus disease in the U.S.
 - Death in other parts of the world

Is there any medical follow-up needed for children who have received the Rotarix or RotaTeq vaccine?
FDA does not believe medical follow-up is warranted for children who have been vaccinated with Rotarix and RotaTeq vaccines. Extensive studies, including placebo-controlled, randomized clinical

Haemophilus influenzae type b



Hiberix

- *Haemophilus influenza* type B vaccine conjugated to tetanus toxoid (PRP-T)
- Approved as a “booster dose” for children 15 months through 4 years of age who have received a primary series of any Hib-containing vaccine
- Supplied as a lyophilized powder that is reconstituted with 0.9% saline diluent (provided in a syringe)



www.cdc.gov/mmwr/preview/mmwrhtml/mm5836a5.htm



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Hiberix

- Can be used as the last dose in the Hib series in a child who has received at least one prior dose of ANY Hib-containing vaccine
- Should NOT be use as the ONLY Hib dose in a child who has received no prior Hib doses
- Can be used at 12-14 months of age*

*off-label



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Pneumococcal

Prevnar 13

- February 24, FDA approved Prevnar 13 & ACIP recommends PCV13 to replace PCV7
 - Streptococcus pneumoniae serotypes 1, 3, 4, 5, 6A, 6B, 7F, 9V, 14, 18C, 19A, 19F, & 23F
 - Indicated for
 - all children 2 through 59 mos of age
 - High-risk children 60-71 mos (chronic illness, immunocompromised, asplenia)
 - Four-dose schedule at 2, 4, 6, and 12-15 mos
 - Contains aluminum adjuvant

www.fda.gov/downloads/BiologicsBloodVaccines/Vaccines/ApprovedProducts/UCM201669.pdf

www.cdc.gov/vaccines/recs/provisional/downloads/pcv13-mar-2010-508.pdf



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Prevnar 13

- Children who have received 1 or more doses of PCV7 should complete the immunization series with PCV13
- Single supplemental dose of PCV13 following a complete PCV7 series
 - Healthy children 14-59 mos.
 - Children 14-71 mos. with an underlying medical condition (even if already received PPSV23 dose)



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Prevnar 13

- Single supplemental dose of PCV13 for children 6-18 years at increased risk for invasive pneumococcal disease*
 - Functional or anatomic asplenia (including sickle cell disease)
 - Immunocompromised (including HIV)
 - Cochlear implant
 - CSF leak

*off-label



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Pneumococcal Polysaccharide Vaccine (PPSV23) ACIP Recommendations

- Adults 65 years and older
- **Persons 19-64 years of age who are current cigarette smokers**
- **Persons 19-64 years of age with asthma**
- Persons 2 years and older with
 - chronic illness
 - anatomic or functional asplenia
 - immunocompromised (disease, chemotherapy, steroids)
 - HIV infection
 - environments or settings with increased risk



www.cdc.gov/vaccines/recs/provisional/downloads/pneumo-Oct-2008-508.pdf

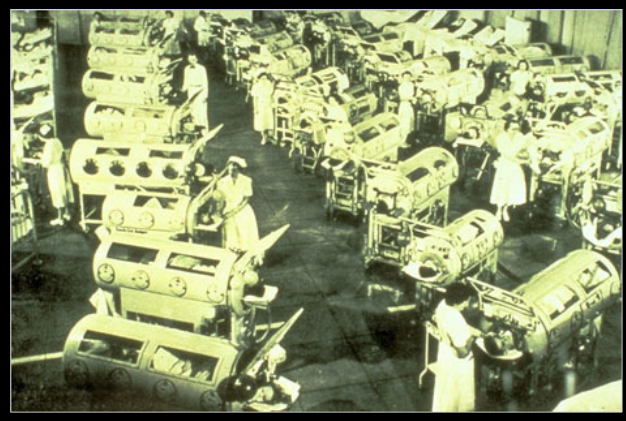
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Polio

New IPV Recommendations

- No change in the recommended IPV schedule of four doses at ages 2 months, 4 months, 6 through 18 months, and 4 through 6 years
- Minimum interval between the next-to-last and last doses is now 6 months (FOR ANY COMPLETE IPV SERIES, REGARDLESS OF AGE)
- Minimum age for the final IPV dose is now 4 years



www.cdc.gov/mmwr/preview/mmwrhtml/mm5830a3.htm?s_cid=mm5830a3_e



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New IPV Recommendations

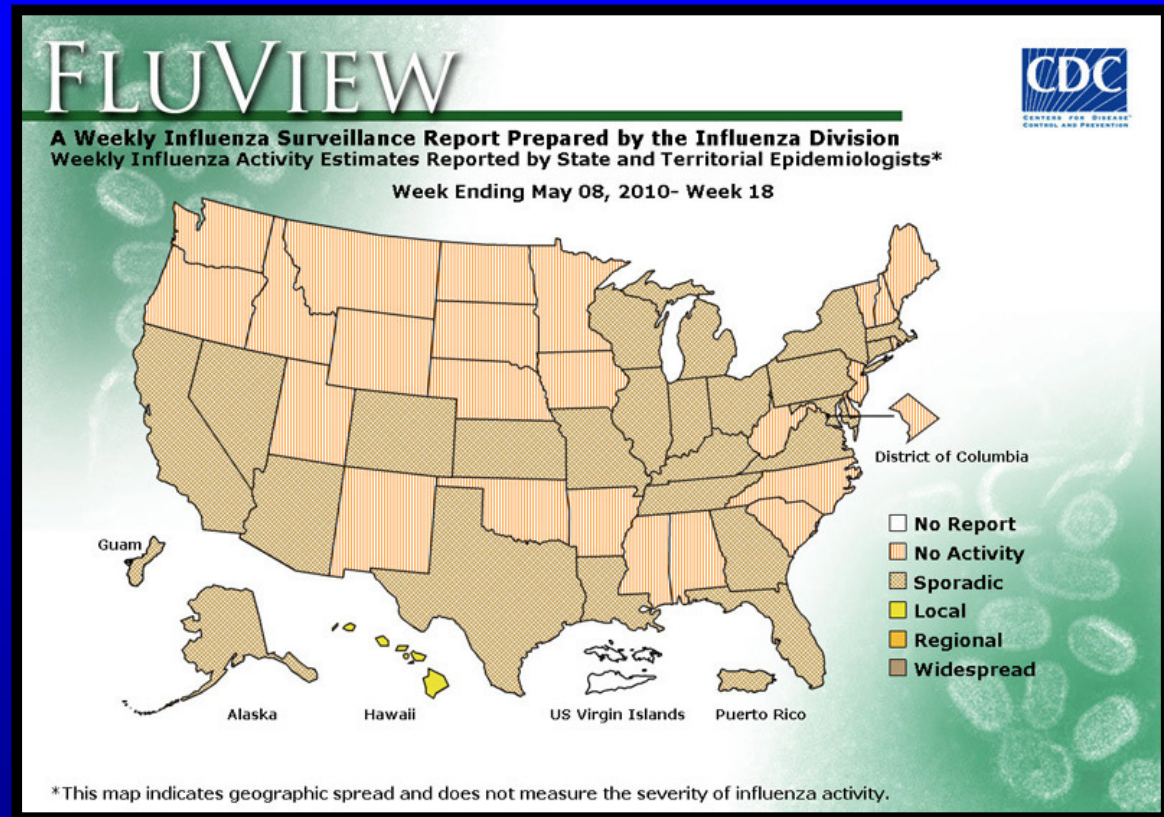
- When 4 (or more) doses of IPV are administered before the 4th birthday, an additional dose of age appropriate IPV should be given on or after the 4th birthday
- In the first 6 months of life, the minimum age and minimum intervals are recommended only if the person is at risk for imminent exposure to circulating poliovirus, such as travel to a polio endemic region or during an outbreak



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Influenza



www.cdc.gov/h1n1flu



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Impact of H1N1 Pandemic Influenza- United States, 2009-2010

- Estimated 60 million persons infected
- Estimated 270,000 2009 H1N1-related hospitalizations
- Estimated 12,270 2009 H1N1-related deaths
 - Approximately 1,270 pediatric deaths
 - Approximately 11,000 deaths in adults
 - Greatest frequency of deaths 50-64 year olds (80% of whom had underlying health conditions)
- Declining activity nationwide, but sporadic activity expected through summer



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Influenza Vaccine Strains 2010-2011

- A/California/7/2009 (H1N1)-like virus
- A/Perth/16/2009 (H3N2)-like virus
- B/Brisbane/60/2008-like virus



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Influenza Vaccination 2010-2011

- ACIP voted on Feb. 24, 2010 to expand the recommendation for annual influenza vaccination to include **all people aged 6 months and older**
- The expanded recommendation is to take effect in the 2010-2011 influenza season
- The new recommendation seeks to remove barriers to influenza immunization and signals the importance of preventing influenza across the entire population



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<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5916a2.htm>

Licensure of a High-Dose Inactivated Influenza Vaccine for Persons Aged ≥ 65 Years (Fluzone High-Dose) and Guidance for Use --- United States, 2010

Weekly

April 30, 2010 / 59(16);485-486

Persons aged ≥ 65 years are at greater risk for hospitalization and death from seasonal influenza compared with other age groups (1,2), and they respond to vaccination with lower antibody titers to influenza hemagglutinin (an established correlate of protection against influenza) compared with younger adults (3). On December 23, 2009, the Food and Drug Administration (FDA) licensed an injectable inactivated trivalent influenza vaccine (Fluzone High-Dose, Sanofi-Pasteur) that contains an increased amount of influenza virus hemagglutinin antigen compared with other inactivated influenza vaccines such as Fluzone. Fluzone High-Dose is licensed as a single dose for use in persons aged ≥ 65 years and will be available beginning with the 2010--11 influenza season. The Advisory Committee on Immunization Practices (ACIP) reviewed data from prelicensure clinical trials on the safety and immunogenicity of Fluzone High-Dose and expressed no preference for the new vaccine over other inactivated trivalent influenza vaccines (4). This report summarizes the FDA-approved indications for Fluzone High-Dose and provides guidance from ACIP for its use.



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Fluzone High-Dose

- A higher dose formulation of TIV (sanofi Pasteur) licensed by FDA on 12/23/2009 for use in people 65 years or older
- Will be available in 2010-11 influenza season
- Contains 4 X the amount of influenza antigen compared to other TIV vaccines
- In one study of people 65 years and older produced higher antibody levels, but slightly higher local reactions
- Studies underway to assess relative effectiveness compared to standard dose. Results will not be available before the 2010-11 influenza season
- ACIP has not expressed a preference for Fluzone High-Dose or any other licensed inactivated influenza vaccine for use in people age 65 and older



www.fda.gov/downloads/BiologicsBloodVaccines/Vaccines/ApprovedProducts/UCM195479.pdf

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New TIV for Adults

- Agriflu (Novartis)
- Licensed by FDA Nov. 27/2009
- Will be available in 2010-11 influenza season
- For use in people 18 years of age and older.



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Expanded Age Indications for Two TIV Vaccines

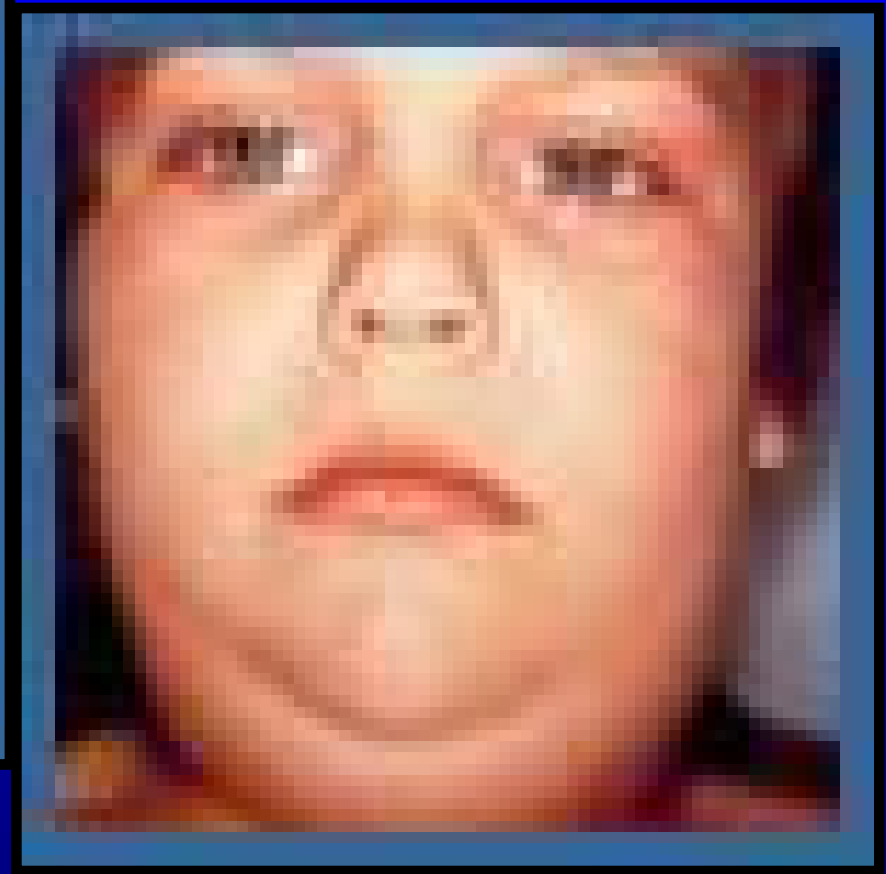
- Afluria (CSL Vaccines) - now licensed for use in persons 6 months of age and older
- Fluarix (GSK Biologicals) - now licensed for use in persons 3 years of age and older



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Measles and Mumps




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Measles outbreak in Metro Vancouver




Public warned to be alert
after ten confirmed cases
in the past two weeks

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Sunny Dhillon

Vancouver, BC — The Canadian Press

Published on Tuesday, Mar. 30, 2010 4:48PM EDT

Last updated on Tuesday, Mar. 30, 2010 5:12PM EDT

The B.C. Centre for Disease Control is warning the public to be alert
after a measles outbreak in Metro Vancouver.



More than 1,000 get mumps in New York, New Jersey since August

February 8, 2010 10:00 p.m. EST



The greater New York City area has seen more than 1,000 cases of mumps since August..

STORY HIGHLIGHTS

- Almost all the cases of mumps involve adolescent Orthodox Jews

New York (CNN) -- More than 1,000 people in New Jersey and New York, many of them adolescent Orthodox Jews, have been sickened with mumps since August, health authorities said Monday.

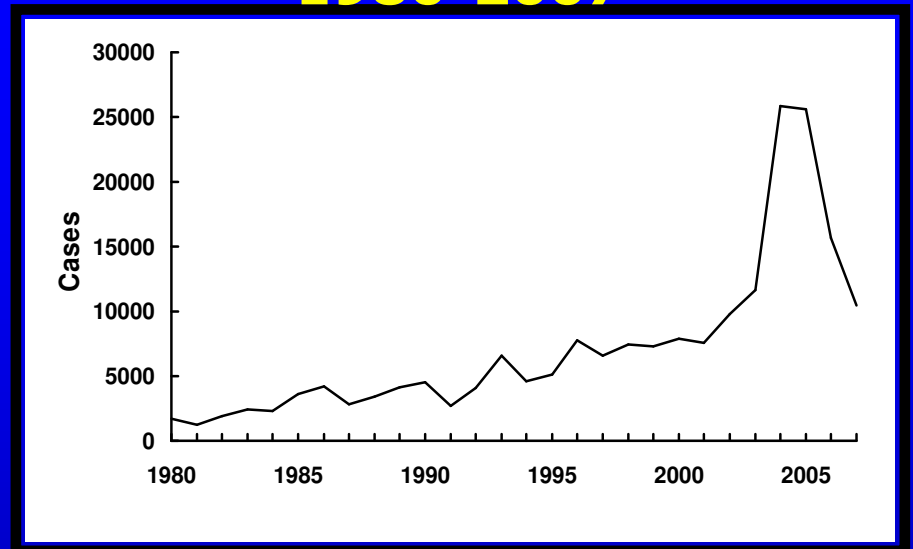
Orange County, New York, has confirmed 494 cases since early November, county spokesman Richard Mayfield told CNN. Almost all of those infected with the virus are of the Orthodox or Hasidic Jewish population, and their average age is 14, he said.

Neighboring Rockland County has confirmed 317 cases since August, with all of the sick from the Orthodox Jewish community, said Kathleen Henry, county Deputy Commissioner of Health. Their

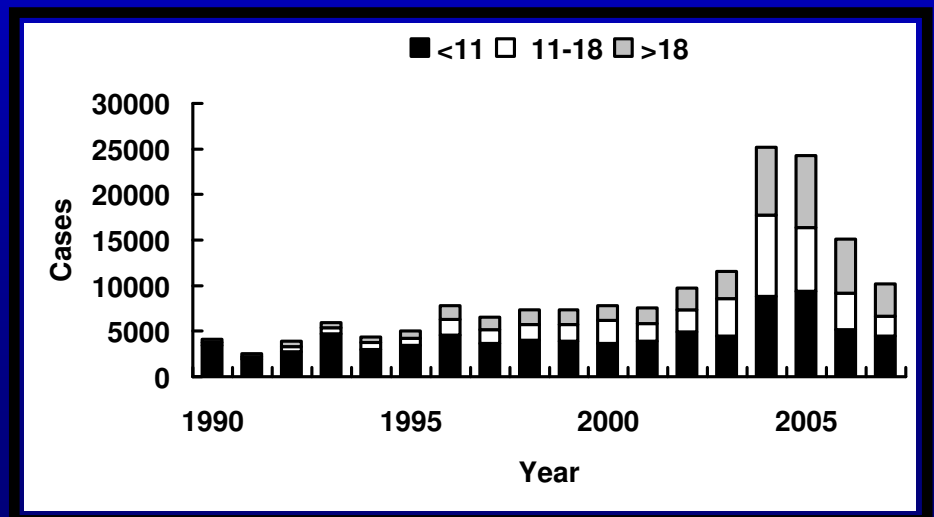
Pertussis in Adults



Pertussis—United States, 1980-2007



Reported Pertussis by Age Group, 1990-2007



"Cocooning" Strategy to Prevent Pertussis Infection in Infants



- Assure that you and other staff in your office or facility have received Tdap
- Partner with clinicians who have access to parents and siblings of infants (e.g., OB-GYN providers, prenatal/new parent educators) to provide Tdap to families of infants
- Vaccinate new mothers at the time of discharge if they have not previously received Tdap



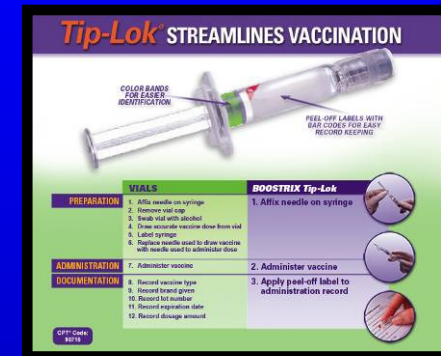
www.cdc.gov/mmwr/PDF/rr/rr5517.pdf

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Tdap Use in Adolescents and Adults

- Tdap approved ages
 - 10 through 64 years for Boostrix
 - 11 through 64 years for Adacel



- Tdap not approved for adults 65 years or older

Off-label use of Tdap in this age group NOT recommended



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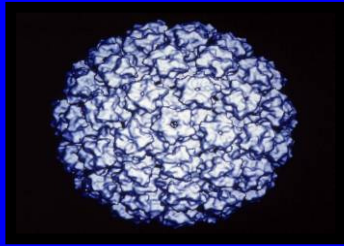
Td and Tdap Minimum Intervals

- There is no absolute minimum interval between Td and Tdap
- In “routine” circumstances separate Td and Tdap by at least 5 years to reduce the chance of a local reaction
- If pertussis immunity is imperative (HCP, infant in household) then administer Tdap regardless of interval since last Td



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Human Papillomavirus

- **HPV2 (GSK, Cervavix)**
 - 16 and 18
 - Approved for the prevention of cervical cancers in females
- **HPV4 (Merck, Gardasil)**
 - 16, 18, 6 and 11
 - Approved for prevention of cervical, vaginal & vulvar cancers (in females) & genital warts (in females & males)



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ACIP Provisional HPV Recommendations for Females

- Routine vaccination of females at 11 or 12 years with 3 doses of HPV vaccine (can begin as young as 9 years)
- Also recommended for females 13 through 26 years who have not been previously vaccinated or who have not completed the full vaccination series



www.cdc.gov/vaccines/recs/provisional/downloads/hpv-vac-dec2009-508.pdf

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ACIP Provisional HPV Recommendations for Males

- HPV4 vaccine ONLY may be given to males 9 through 26 years to reduce their likelihood of acquiring genital warts
- Ideally, vaccine should be administered before potential exposure to HPV through sexual contact

www.cdc.gov/vaccines/recs/provisional/downloads/hpv-vac-dec2009-508.pdf



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HPV Vaccination Schedule

- Routine schedule is 0, 1- 2*, 6 months
- Third dose should follow the first dose by at least 24 weeks
- An accelerated schedule using minimum intervals is not recommended
- Series does not need to be restarted if the schedule is interrupted
- Whenever possible, the same HPV vaccine product should be used for

*off-label



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HPV Vaccination During Pregnancy

- Initiation of the vaccine series should be delayed until after completion of pregnancy
- If a woman is found to be pregnant after initiating the vaccination series, remaining doses should be delayed until after the pregnancy
- If a vaccine dose has been administered during pregnancy, there is no indication for intervention
- Women vaccinated during pregnancy should be reported to the Merck registry (800.986.8999)



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Meningococcal Disease

- Meningococcal polysaccharide vaccine (MPSV4, Menomune)
 - 2 years of age and older
 - **subcutaneous** injection
- Meningococcal conjugate vaccine (MCV4, Menactra)
 - 2 through 55 years of age
 - **intramuscular** injection



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MCV4 Revaccination Recommendations

- Children through age 18 years who received their first dose of MCV4 or MPSV4 at ages 2 through 6 years and remain at increased risk for meningococcal disease should receive an additional dose of MCV4 3 years after their first dose*
- Revaccinate every 5 years if still at increased risk

*Off-label



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MCV4 Revaccination Recommendations

- Persons through age 55 years who received a dose of MCV4 or MPSV4 after age 6 years and remain at increased risk for meningococcal disease should receive an additional dose of MCV4 **5 years** after their previous dose*
- Revaccinate every 5 years if still at high risk
- Age 56 and older, **MPSV4** every 5 years if still at high risk

*Off-label



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MCV4 Revaccination Recommendations

- High-risk persons who should be revaccinated with MCV4
 - Persistent complement component deficiency
 - Anatomic or functional asplenia
 - Microbiologists working with specimens of *N. meningitidis*
 - Frequent travelers to or persons living in areas with high rates of meningococcal disease



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MCV4 Revaccination Recommendations

- MCV4 **revaccination** recommendation does NOT apply to children whose only risk factor is living in on-campus housing (i.e., college students living in a dormitory)
- If however received MPSV4 five years or more prior – vaccinate with MCV4



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Meningococcal Revaccination

- Meningococcal conjugate vaccine, MCV4 (Menactra), is preferred for revaccination, but MPSV4 (Menomune) is an acceptable substitute for persons with precautions or contraindications to MCV4 vaccine



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New Meningococcal Conjugate Vaccine

- Menveo (Novartis)
 - FDA approved on February 19, 2010
 - *Neisseria meningitidis* serogroups (A, C, Y, and W-135)
 - Conjugated with Oligosaccharide Diphtheria CRM197 (protein carrier)
 - FDA approved for use in people ages 11 through 55 years
 - May be used for any person 11-55 years for whom MCV4 is indicated, including revaccination
 - **Solution that contains serogroups C, Y, and W-135 is used to reconstitute lyophilized powder that contains serogroup A**



www.fda.gov/downloads/BiologicsBloodVaccines/Vaccines/ApprovedProducts/UCM201349.pdf

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Shingles (Herpes Zoster)



Zostavax

Administer a single dose to persons 60 yrs of age and older who had chickenpox to reduce the risk of subsequent development of zoster and postherpetic neuralgia



- Contains live varicella vaccine virus in much larger amount (14x) than standard varicella vaccine (Varivax)
- Requires freezer storage AT ALL TIMES

ACIP Recommendations for Zoster Vaccine

- Need for booster dose or doses not known at this time
- A history of herpes zoster should not influence the decision to vaccinate
- It is not necessary to inquire about chickenpox or test for varicella immunity before administering zoster vaccine
- Persons 60 years of age and older can be assumed to be immune (born in U.S. before 1980) regardless of their recollection of chickenpox



www.cdc.gov/mmwr/PDF/rr/rr5705.pdf

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Serologic Testing for Varicella Immunity

- If a person 60 years or older is tested for varicella antibody and found to be negative
 - Administer 2 doses of regular varicella vaccine (not zoster vaccine)
 - Zoster vaccine is not indicated for persons whose immunity is based upon varicella vaccination



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Zoster Vaccine

Contraindications and Precautions

- Severe allergic reaction to a vaccine component or following a prior dose
- Immunosuppression from any cause
- Pregnancy or planned pregnancy within 4 weeks
- Moderate or severe acute illness
- Recent blood product is NOT a precaution
- Current treatment with antiviral drug against herpesviruses (acyclovir, famciclovir, or valacyclovir)
 - Discontinue use at least 24 hours before zoster vaccination
 - Do not restart for at least 14 days after vaccination



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Revised Zostavax Package Insert

- ZOS and PPSV23 should not be administered concurrently
 - Recommendation based on Merck study that showed the average titer against varicella zoster virus (VZV) was lower in persons who received ZOS and PPSV23 at the same visit compared to persons who received these vaccines 4 weeks apart
 - Clinical relevance of this observation unknown
 - No evidence to indicate antibody titers against VZV are a measure of protection against HZ
 - Results were confounded by unexplained differences across comparison group in the baseline VZV antibody titers
 - PPSV23 antibody levels to serotypes 3,14,19A,22F were assessed and unaffected

Significance of this observation is also unknown



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Revised Zostavax Package Insert

- Safety profile of ZOS unaffected by simultaneous administration of PPSV23
- To avoid introducing barriers to patients and providers interested in these two important vaccines, CDC has not changed its recommendation for either vaccine.
- CDC continues to recommend that ZOS and PPSV23 be administered at the same visit if the person is eligible for both vaccines*

*Off-label



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Hepatitis A

- Two doses at least 6 calendar months apart for all household contacts and other close personal contacts (e.g. regular babysitters) of international adoptees from countries with high or intermediate Hep A endemicity



www.cdc.gov/mmwr/preview/mmwrhtml/mm5836a4.htm?s_cid=mm5836a4_e



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Healthcare Personnel

Need the following immunizations:

- Annual influenza
- Tdap or Td
- Hepatitis B (exposure risk)

Validate immunity status of:

- Varicella
- Measles, Mumps & Rubella (MMR)



Are YOU up to date?



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Evidence of Measles, Mumps, and Rubella Immunity for Healthcare Personnel (HCP)

- Appropriate vaccination against measles, mumps, and rubella
 - 2 doses of measles and mumps vaccine
 - at least 1 dose of rubella vaccine, or
- Laboratory evidence of immunity, or
- Laboratory confirmation of disease
- Physician-diagnosed disease no longer recommended as evidence of measles or mumps immunity



www.cdc.gov/vaccines/recs/provisional/downloads/mmr-evidence-immunity-Aug2009-508.pdf

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Evidence of Measles, Mumps, and Rubella Immunity for Healthcare Personnel (HCP)

- For unvaccinated personnel born before 1957 who lack laboratory evidence of measles, mumps and/or rubella immunity or laboratory confirmation of disease, healthcare facilities **should consider vaccinating** personnel with two doses of MMR vaccine at the appropriate interval for measles and mumps, and one dose of MMR vaccine for rubella, respectively



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Evidence of Measles, Mumps, and Rubella Immunity for Healthcare Personnel (HCP)

- For unvaccinated personnel born before 1957 who lack laboratory evidence of measles, mumps and/or rubella immunity or laboratory confirmation of disease, healthcare facilities **should recommend** two doses of MMR vaccine during an outbreak of measles or mumps and one dose during an outbreak of rubella



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Be Prepared to Administer Vaccines Correctly



- Ensure staff is adequately trained
- Provide current immunization education
- Adhere to OSHA guidelines for employee safety
- Provide staff with easy to use resources and guidelines
- Document immunizations correctly



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Correct!



Incorrect!



NO!!!



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For obese, vaccine needle size matters



Frederik Joelsing

Mon Feb 8, 2010 10:57 am
EST

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Mon, Jan 25 2010

NEW YORK (Reuters Health) - Our ever-expanding waistlines may have outgrown the doctor's needle, researchers say, in what could be another casualty of the obesity epidemic.

HEALTH

In a new study, the researchers report that using a standard 1-inch needle to immunize obese



www.reuters.com/article/idUSTRE61733Z20100208

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Syncope Following Vaccination

- An increase in the number of reports of syncope has been detected by the Vaccine Adverse Event Reporting System (VAERS)
- 11-18 year old females have contributed most of the increase
- Serious injuries have resulted

www.cdc.gov/mmwr/preview/mmwrhtml/mm5717a2.htm?s_cid=mm5717a2_e



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Administer Immunizations SAFELY!

- Have patients seated for vaccination
- Strongly consider observing patients for 15 minutes after they are vaccinated
- If syncope develops, patients should be observed until symptoms resolve



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Vaccine Information Statements

Vaccine-Related Topics

- > [Immunization Schedules](#)
- > [Recommendations and Guidelines](#)
- > [Vaccines & Preventable Diseases](#)
- > [Basics and Common Questions](#)
- > [Vaccination Records](#)
- > [Vaccine Safety and Adverse Events](#)
- > [For Travelers](#)
- > [For Specific Groups of People](#)
- > [Campaign Materials](#)

Additional Resources

- > [Publications](#)

Publications:

Vaccine Information Statements


At a glance: _____

Vaccine Information Statements (VISs) are information sheets produced by the Centers for Disease Control and Prevention (CDC) that explain to vaccine recipients, their parents, or their legal representatives both the benefits and risks of a vaccine. [Federal law](#) requires that VISs be handed out whenever (before each dose) certain vaccinations are given.

Downloadable VISs :

| [Multiple Vaccines](#) (DTaP, IPV, Hib, PCV, Hepatitis B, and Rotavirus)

| [Anthrax](#) **UPDATED** | [DTaP](#) | [Hepatitis](#) | [Hib](#) | [Influenza](#) | [HPV](#) **UPDATED** | [JE](#) **UPDATED** | [MMR](#) | [Meningococcal](#) | [PCV13 and PCV7](#) **UPDATED** | [PPSV23](#) | [Polio](#) | [Rabies](#) | [Rotavirus](#) **UPDATED** | [Shingles](#) | [Smallpox](#) | [Td/Tdap](#) | [Typhoid](#) | [Varicella](#) | [Yellow Fever](#)

 **VIS News** Information about new and upcoming VISs (Last updated 5/5/10)

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- > [Download a VIS onto a Mobile Device](#)
- > [Fact Sheet for Vaccine Information Statements](#)
- > [FAQs about VISs](#)
- > [Myth Exposed!](#)



www.cdc.gov/vaccines/pubs/vis/default.htm
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Immunization Websites for Nurses

www.anaimmunize.org/



The screenshot shows the ANA Immunize website. The header features the ANA Immunize logo with the tagline "Bringing Immunity to Every Community" and the text "The largest nursing organization in the US". A search bar is located next to the logo. A navigation menu includes links for Home, About ANA Immunize, Contact Us, Media Resources, Site Map, and NursingWorld. Below the header, there are sections for "VACCINES FOR NURSES", "NURSE EDUCATION", "CLINICAL TOOLS", "PATIENT EDUCATION", "SAFETY & RESEARCH", and "POLICY & ADVOCACY". The main content area is divided into several sections: "ANA Immunize" with a photo of nurses and the text "IMMUNIZE FOR YOURSELF FOR EVERYONE!", "News & Announcements" with links to "Immunization News & Headlines", "Sign Up to Receive ANA ImmuNews!", and "View all...", "Immunization Action" with the text "Article Highlights Bringing Immunity to Every Community Initiative" and a link to "Learn more...", "Get the Picture: Childhood Immunizations Video" with a video player, and "Initiative Partners" with a photo of three children and the text "EVERY CHILD BY TWO". A sidebar on the left contains links for "NURSES" (Staff RN, APRN, Administrator), "SETTINGS" (Acute Care, Long-Term Care, Public Health, Schools), and "SPECIAL POPULATIONS" (Infants & Children, Adolescents, Adults, Specific Health Conditions, Specific Populations). The bottom of the page shows a "Change Zoom Level" button set to 100%.

www.nnina.org/



The screenshot shows the NNINA website. The header features the NNINA logo with the text "National Network of Immunization Nurses and Associates". Below the header, there are several sections: "Membership Directory" with a link to "Contact Us" and a link to "Add Me To Your Mailing List", "The National Network of Immunization Nurses & Associates (NNINA)" with the text "NNINA is looking for 'a few good nurses' and others interested in immunizations to help provide a network of support and expertise in order to advance immunizations in nursing practice.", "What does NNINA do?" with the text "NNINA provides a collective voice of advocacy and support for nurses and others working in immunizations activities.", "NNINA to host a booth during the 44th National Immunization Conference" with the text "Be sure to visit NNINA's booth during the 44th National Immunization Conference, April 19-22 in Atlanta Georgia. Click on 'News' for more.", and a "Print This Page" button in the bottom right corner.

CDC Vaccines and Immunization Contact Information

- Telephone 800.CDC.INFO
(for patients and parents)
- Email nipinfo@cdc.gov
(for providers)
- Website www.cdc.gov/vaccines/
- Vaccine Safety
www.cdc.gov/od/science/iso/



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